

## **IN THE CLAIMS**

Please amend claim 1 as follows:

1. (Currently Amended) A method for displaying results of a hybridization experiment in which a plurality of probe biopolymers immobilized on a biochip are hybridized to a sample biopolymer, the method comprising the steps of:
  - providing the biochip immobilized with said plurality of probe biopolymers;
  - conducting the hybridization experiment on the provided biochip thereby hybridizing said sample biopolymer with said plurality of probe biopolymers;
  - determining information obtained in the conducted hybridization experiment about a hybridization level for each of the probe biopolymers;
  - determining a probe homologous similarity score, which represents a homologous similarity between first probe data on a base sequence of at least one of the probe biopolymers immobilized on the provided biochip and second probe data on a base sequence of at least one other of the probe biopolymers immobilized on the provided biochip, according to an algorithm for calculating degrees of homology between two biopolymer sequences; and
  - displaying said information about the hybridization level for each of the probe biopolymers immobilized on the provided biochip together with said probe homologous similarity score, including generating a visual graphical representation of the determined hybridization level and correspondingly determined probe homologous similarity score so as to provide at least one of a visual confirmation of similarities between the base sequences of corresponding probe biopolymers immobilized on the provided biochip used in the hybridization experiment and a visual indication of unexpected or improper hybridization.
2. (Previously Presented) The method for displaying results of a hybridization experiment according to claim 1, wherein said step of generating the visual graphical representation includes assigning different depths in a color to different values of the probe homologous similarity score.

3. (Previously Presented) The method for displaying results of a hybridization experiment according to claim 1, wherein said step of generating the visual graphical representation includes assigning different depths in a color to different values of the probe homologous similarity score, and arranging subject probe biopolymers horizontally and vertically to form a matrix.
4. (Previously Presented) The method for displaying results of a hybridization experiment according to any one of claims 1 to 3, wherein said step of generating the visual graphical representation includes displaying the information about the hybridization level by assigning different depths in a color to different values of the hybridization level, or by providing spot images of respective probe biopolymers.
5. (Previously Presented) The method for displaying results of a hybridization experiment according to any one of claims 1 to 3, wherein probe biopolymer data, hybridization levels and probe homologous similarity scores are displayed side by side by sorting them by values of the probe homologous similarity score between specific one of the probe biopolymers and each of the probe biopolymers.
6. (Original) The method for displaying results of a hybridization experiment according to claim 5, wherein the hybridization levels obtained from a plurality of biochips are displayed side by side.
7. (Original) The method for displaying results of a hybridization experiment according to claim 6, wherein a profile of changes in the hybridization level of the subject biopolymers on said plurality of biochips is statistically analyzed, and the results of the analysis are displayed together with the results of clustering the probe biopolymers side by side.
8. (Previously Presented) The method for displaying results of a hybridization experiment according to claim 1, wherein the probe data on the base sequences of the probe biopolymers for determining the probe homologous similarity score includes at

least one of DNA probe names, DNA probe definition information and DNA probe sequences.

9. (Previously Presented) The method for displaying results of a hybridization experiment according to claim 1, wherein said algorithm is a Smith-Waterman method or a BLAST method.